



PMN2011P1

## PMN Page 1

SANITIZED SUBMISSION

Form Approved. O.M.B. Nos. 2070-0012 and 2070-0038

U.S. ENVIRONMENTAL PROTECTION AGENCY		AGENCY USE ONLY											
 <b>EPA</b>	<b>PREMANUFACTURE NOTICE</b>		Date of receipt: <span style="border: 1px solid black; display: inline-block; width: 150px; height: 20px;"></span>										
	<b>FOR NEW CHEMICAL SUBSTANCES</b>												
<b>When completed, send this form to:</b>	<b>If sending by Courier:</b> Office of Pollution Prevention and Toxics Document Control Office (7407M) US EPA, 1201 Constitution Ave NW WASHINGTON, D.C. 20460 Contact Numbers: 202-564-8930/8940	<b>If sending by US Mail:</b> Office of Pollution Prevention and Toxics Document Control Office (7407M) US EPA, 1200 Pennsylvania Ave NW WASHINGTON, D.C. 20460	<b>Submission Report Number</b>  NICC110316460458156										
<b>Total Number of Pages</b>	<b>User Fee Payment ID Number</b>		<b>TS Number</b>										
320	2521M1RH		NP395P										
<b>GENERAL INSTRUCTIONS</b>													
<ul style="list-style-type: none"><li>You must provide all information requested in this form to the extent that it is known to or reasonably ascertainable by you. Make reasonable estimates if you do not have actual data.</li><li>Before you complete this form, you should read the "Instructions Manual for Premanufacture Notification" (the Instructions Manual is available from the Toxic Substances Control Act (TSCA) Information Service by calling 202-554-1404, or faxing 202-554-5603).</li><li>If a user fee has been remitted for this notice (40 CFR 700.45), indicate in the boxes above the TS-user fee identification number you have generated. Remember, your user fee ID number must also appear on your corresponding fee remittance. For mailing address information see the Help instructions in the e-PMN tool.</li></ul>													
<b>Part I – GENERAL INFORMATION</b>  You must provide the currently correct Chemical Abstracts (CA) Name of the new chemical substance, even if you claim the identity as confidential. You may authorize another person to submit chemical identity information for you, but your submission will not be complete and the review will not begin until EPA receives this information. A letter in support of your submission should reference your TS user fee identification number. For all Section 5 Notice submissions (paper or electronic) you must submit an original notice including all test data; if you claimed any information as confidential, an original sanitized copy must also be submitted.		<b>TEST DATA AND OTHER DATA</b>  You are required to submit all test data in your possession or control and to provide a description of all other data known to or reasonably ascertainable by you, if these data are related to the health and environmental effects on the manufacture, processing, distribution in commerce, use, or disposal of the new chemical substance. Standard literature citations may be submitted for data in the open scientific literature. <u>Complete test data (written in English), not summaries of data, must be submitted if they do not appear in the open literature.</u> You should clearly identify whether test data is on the substance or on an analog. Also, the chemical composition of the tested material should be characterized. Following are examples of test data and other data. Data should be submitted according to the requirements of §720.50 of the Premanufacture Notification Rule (40 CFR Part 720).  <div style="text-align: center; padding: 5px;"><b>Test Data (Check Below any included in this notice)</b></div> <table style="width: 100%;"><tr><td style="width: 50%;"><input checked="" type="checkbox"/> Environmental fate data</td><td style="width: 50%;"><input type="checkbox"/> Other Data</td></tr><tr><td><input checked="" type="checkbox"/> Health effects data</td><td><input type="checkbox"/> Risk Assessments</td></tr><tr><td><input checked="" type="checkbox"/> Environmental effects data</td><td><input type="checkbox"/> Structure/activity relationships</td></tr><tr><td><input checked="" type="checkbox"/> Physical/Chemical Properties (A physical and chemical properties worksheet is located on the last page of this form.)</td><td></td></tr><tr><td><input type="checkbox"/> Test data not in the possession or control of the submitter</td><td></td></tr></table>		<input checked="" type="checkbox"/> Environmental fate data	<input type="checkbox"/> Other Data	<input checked="" type="checkbox"/> Health effects data	<input type="checkbox"/> Risk Assessments	<input checked="" type="checkbox"/> Environmental effects data	<input type="checkbox"/> Structure/activity relationships	<input checked="" type="checkbox"/> Physical/Chemical Properties (A physical and chemical properties worksheet is located on the last page of this form.)		<input type="checkbox"/> Test data not in the possession or control of the submitter	
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<input type="checkbox"/> Test data not in the possession or control of the submitter													
<b>Part II – HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE</b>  If there are several manufacture, processing, or use operations to be described in Part II, sections A and B of this notice, reproduce the sections as needed.		<div style="text-align: center; padding: 5px;"><b>TYPE OF NOTICE (Check Only One)</b></div> <table style="width: 100%;"><tr><td><input checked="" type="checkbox"/> <b>PMN</b> (Premanufacture Notice)</td></tr><tr><td><input type="checkbox"/> <b>SNUN</b> (Significant New Use Notice)</td></tr><tr><td><input type="checkbox"/> <b>TMEA</b> (Test Marketing Exemption Application)</td></tr><tr><td><input type="checkbox"/> <b>LVE</b> (Low Volume Exemption) @ 40 CFR 723.50(c)(1)</td></tr><tr><td><input type="checkbox"/> <b>LOREX</b> (Low Release/Low Exposure Exemption) @ 40 CFR 723.50(c)(2)</td></tr><tr><td><input type="checkbox"/> <b>LVE Modification</b></td></tr><tr><td><input type="checkbox"/> <b>LOREX Modification</b></td></tr><tr><td><input type="checkbox"/> <b>Mock Submission</b></td></tr><tr><td><input type="checkbox"/> Mark (X) if pending Letter of Support</td></tr></table> <p>IS THIS A CONSOLIDATED PMN (Y/N)?</p> <p>_____ # of chemicals or polymers (Prenotice Communication # required, enter # on p. 3).</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;"><input checked="" type="checkbox"/> Mark (X) if any information in this notice is claimed as confidential.</div>		<input checked="" type="checkbox"/> <b>PMN</b> (Premanufacture Notice)	<input type="checkbox"/> <b>SNUN</b> (Significant New Use Notice)	<input type="checkbox"/> <b>TMEA</b> (Test Marketing Exemption Application)	<input type="checkbox"/> <b>LVE</b> (Low Volume Exemption) @ 40 CFR 723.50(c)(1)	<input type="checkbox"/> <b>LOREX</b> (Low Release/Low Exposure Exemption) @ 40 CFR 723.50(c)(2)	<input type="checkbox"/> <b>LVE Modification</b>	<input type="checkbox"/> <b>LOREX Modification</b>	<input type="checkbox"/> <b>Mock Submission</b>	<input type="checkbox"/> Mark (X) if pending Letter of Support	
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<b>Part III – LIST OF ATTACHMENTS</b>  For paper submissions, attach additional sheets if there is not enough space to answer a question fully. Label each continuation sheet with the corresponding section heading. In Part III, list these attachments, any test data or other data and any optional information included in the notice.													
<b>OPTIONAL INFORMATION</b>  You may include any information that you want EPA to consider in evaluating the new substance. On page 11 of this form, space has been provided for you to describe pollution prevention and recycling information you may have regarding the new substance. "Binding" boxes are included throughout this form for you to indicate your willingness to be bound to certain statements you make in this section, such as use, production volume, protective equipment . . . The intention is to reduce delays that routinely accompany the development of consent orders or Significant New Use Rules. Checking a "binding" box in a PMN does not by itself prohibit the submitter from later deviating from the information (except chemical identity) reported in the form; however, in the case of exemption applications (such as TMEA, LVE, LOREX) certain information provided in such notifications is binding on the submitter when the Agency approves the exemption application, especially if the production volume "binding" box is chosen in a LVE.													
<b>CONFIDENTIALITY CLAIMS</b>  You may claim any information in this notice as confidential. To assert a claim on the form, mark (X) the confidential box next to the information that you claim as confidential. To assert a claim in an attachment, circle or bracket the information you claim as confidential. <u>If you claim information in the notices as confidential, you must also provide a sanitized version of the notice, (including attachments).</u> For additional instructions on claiming information as confidential, read the Instructions Manual.													



The public reporting and recordkeeping burden for this collection of information is estimated to average 93 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA Form 7710-25 to this address.

**CERTIFICATION** -- A printed copy of this signature page, with original signature, must be submitted with CD or paper submission.

I certify that to the best of my knowledge and belief:

1. The company named in Part I, section A, subsection 1a of this notice form intends to manufacture, import or process for a commercial purpose, other than in small quantities solely for research and development, the substance identified in Part I, Section B.
2. All information provided in this notice is complete and truthful as of the date of submission.
3. I am submitting with this notice all test data in my possession or control and a description of all other data known to or reasonably ascertainable by me as required by §720.50 of the Premanufacture Notification Rule.

**Additional Certification Statements:**

If you are submitting a PMN, Intermediate PMN, Consolidated PMN, or SNUN, check the following **user fee** certification statement that applies:



The Company named in Part I, Section A has remitted the fee of \$2500 specified in 40 CFR 700.45(b), or



The Company named in Part I, Section A has remitted the fee of \$1000 for an Intermediate PMN (defined @ 40 CFR 700.43) in accordance with 40 CFR 700.45(b), or



The Company named in Part I Section A is a small business concern under 40 CFR 700.43 and has remitted a fee of \$100 in accordance with 40 CFR 700.45(b).

If you are submitting a **Low Volume Exemption (LVE)** application in accordance with 40 CFR 723.50(c)(1) or a **Low Release and Low Exposure Exemption (LoRex)** application in accordance with 40 CFR 723.50(c)(2), check the following certification statements:



The manufacturer submitting this notice intends to manufacture or import the new chemical substance for commercial purposes, other than in small quantities solely for research and development, under the terms of 40 CFR 723.50.



The manufacturer is familiar with the terms of this section and will comply with those terms; and



The new chemical substance for which the notice is submitted meets all applicable exemption conditions.



If this application is for an LVE in accordance with 40 CFR 723.50(c)(1), the manufacturer intends to commence manufacture of the exempted substance for commercial purposes within 1 year of the date of the expiration of the 30 day review period.

The accuracy of the statements you make in this notice should reflect your best prediction of the anticipated facts regarding the chemical substance described herein. Any knowing and willful misrepresentation is subject to criminal penalty pursuant to 18 USC 1001.

Confidential

Signature and title of  
Authorized Official (Original  
Signature Required)

Date





PMN2011P3

SANITIZED SUBMISSION

## PMN Page 3

## Part I -- GENERAL INFORMATION

Section A – SUBMITTER IDENTIFICATION									
Mark (X) the "Confidential" box next to any subsection you claim as confidential									
<b>1a. Person Submitting Notice (in U.S.)</b>								Confidential	
Name of Authorized Official		(first) XXX				(last) XXX		<input checked="" type="checkbox"/>	
Position		XXX							
Company		XXX							
Mailing Address (number & street)		XXX							
City	XXX	State			Postal Code	XXX			
email		XXX							
<b>b. Agent (if Applicable)</b>								Confidential	
Name of Authorized Official		(first) Not applicable				(last)		<input type="checkbox"/>	
Position									
Company									
Mailing Address (number & street)									
City		State			Postal Code				
e-mail				Telephone (include area code)					
<b>c. Joint Submitter (if applicable)</b>								Confidential	
If you are submitting this notice as part of a joint submission, mark (X)								<input type="checkbox"/>	
Name of Authorized Official		(first)				(last)		<input type="checkbox"/>	
Position									
Company									
Mailing Address (number & street)									
City		State			Postal Code				
e-mail				Telephone (include area code)					
<b>2. Technical Contact (in U.S.)</b>								Confidential	
Name of Authorized Official		(first) XXX				(last) XXX		<input checked="" type="checkbox"/>	
Position		XXX							
Company		XXX							
Mailing Address (number & street)		XXX							
City	XXX	State			Postal Code	XXX			
e-mail		XXX		Telephone (include area code)		XXX			
<b>3.</b>	If you have had a prenotice communication (PC) concerning this notice and EPA assigned a PC Number to the notice, enter the number.					Mark (X) if none		Confidential	
						<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>4.</b>	If you previously submitted an exemption application for the chemical substance covered by this notice, enter the exemption number assigned by EPA. If you previously submitted a PMN for this substance enter the PMN number assigned by EPA (i.e. withdrawn or incomplete).					Mark (X) if none		Confidential	
						<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>5.</b>	If you have submitted a notice of Bona fide intent to manufacture or import for the chemical substance covered by this notice, enter the notice number assigned by EPA.					Mark (X) if none		Confidential	
						<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>6. Type of Notice – Mark (X)</b>									
1.	Manufacture Only	<input type="checkbox"/>	2.	Import Only	<input checked="" type="checkbox"/>	3.	Both	<input type="checkbox"/>	
	Binding Option	<input type="checkbox"/>		Binding Option	<input type="checkbox"/>				



PMN2011P4

SANITIZED SUBMISSION

## PMN Page 4

## Part I – GENERAL INFORMATION -- Continued

<b>Section B – CHEMICAL IDENTITY INFORMATION:</b>		You must provide a currently correct Chemical Abstracts (CA) name of the substance based on current CA index nomenclature rules and conventions.	
Mark (X) the "Confidential" box next to any item you claim as confidential			
Complete either item 1 (Class 1 or 2 substances) or 2 (Polymers) as appropriate. Complete all other items.			
If another person will submit chemical identity information for you (for either Item 1 or 2), mark (X) the box at the right. Identify the name, company, and address of that person in a continuation sheet.			<input type="checkbox"/>
1. Class 1 or 2 chemical substances (for definitions of class 1 and class 2 substances, see the Instructions Manual)		Class 1	Class 2
a. Class of substance - Mark (X)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Chemical name (Currently correct Chemical Abstracts (CA) Name that is consistent with TSCA Inventory listings for similar substances. For Class 1 substances a CA Index Name must be provided. For Class 2 substances either a CA Index Name or CA Preferred Name must be provided, which ever is appropriate based on current CA index nomenclature rules and conventions).		<input checked="" type="checkbox"/>	
XXX			
CAS Registry Number (if a number already exists for the substance)		XXX	
c. Please identify which method you used to develop or obtain the specified chemical identity information reported in this notice: (check one).			
<b>Method 1</b> (CAS Inventory Expert Service - a copy of the Identification report obtained from the CAS Inventory Expert Services must be submitted as an attachment to this notice)		IES Order Number	<b>Method 2</b> (Other Source)
<input type="checkbox"/>			<input checked="" type="checkbox"/>
Enter Attachment filename for Part I, Section B, 1. c.		<input type="checkbox"/>	
d. Molecular formula	XXX		<input checked="" type="checkbox"/>
e. For a class 1 substance, provide a complete and correct chemical structure diagram. For a class 2 substance, provide a correct representative or partial chemical structure diagram, as complete as can be known, if one can be reasonably ascertained.			<input type="checkbox"/>
See Attachment 001 (001 Structure SAN.docx)			
Enter Attachment filename for Part I, Section B, 1. e.		001 Structure SAN.docx	



PMN2011P4A

## PMN Page 4a

SANITIZED SUBMISSION

For a class 2 substance - (1) List the immediate precursor substances with their respective CAS Registry Numbers. (2) Describe the nature of the reaction or process. (3) Indicate the range of composition and the typical composition (where appropriate).

Confidential

e. (1) List the immediate precursor substance names with their respective CAS Registry Numbers.

☐

N/A -- imported substance

Enter Attachment filename for Part I, Section B, 1. e. (1)

☐

e. (2) Describe the nature of the reaction or process.

☐

Enter Attachment filename for Part I, Section B, 1. e. (2)

☐

e. (3) Indicate the range of composition and the typical composition (where appropriate).

☐

Enter Attachment filename for Part I, Section B, 1. e. (3)

☐



PMN2011P5

SANITIZED SUBMISSION

## PMN Page 5

## Part I -- GENERAL INFORMATION -- Continued

## Section B -- CHEMICAL IDENTITY INFORMATION -- Continued

2. Polymers (For a definition of polymer, see the Instructions Manual.)

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- a. Indicate the number-average weight of the lowest molecular weight composition of the polymer you intend to manufacture. Indicate maximum weight percent of low molecular weight species (not including residual monomers, reactants, or solvents) below 500 and below 1,000 absolute molecular weight of that composition.

☐

Describe the methods of measurement or the basis for your estimates:

GPC

☐

Other (Specify Below)

☐

Specify Other:

(i) lowest number average molecular weight:

(ii) maximum weight % below 500 molecular weight:

(iii) maximum weight % below 1000 molecular weight:

Enter Attachment filename for Part I, Section B, 2. a.

☐

- b. You must make separate confidentiality claims for monomer or other reactant identity, composition information, and residual information. Mark (X) the "Confidential" box next to any item you claim as confidential

- (1) - Provide the specific chemical name and CAS Registry Number (if a number exists) of each monomer or other reactant used in the manufacture of the polymer.
- (2) - Mark (X) this column if entry in column (1) is confidential.
- (3) - Indicate the typical weight percent of each monomer or other reactant in the polymer.
- (4) - Choose "yes" from drop down menu if you want a monomer or other reactant used at two weight percent or less to be listed as part of the polymer description on the TSCA Chemical Substance Inventory.
- (5) - Mark (X) this column if entries in columns (3) and (4) are confidential.
- (6) - Indicate the maximum weight percent of each monomer or other reactant that may be present as a residual in the polymer as manufactured for commercial purposes.
- (7) - Mark (X) this column if entry in column (6) is confidential.

Monomer or other reactant specific chemical name  
(1)CBI  
(2)Typical  
composition  
(3)Include in  
identity  
(4)CBI  
(5)Max  
residual  
(6)CBI  
(7)

CAS Registry Number (1)

CAS Registry Number (1)

CAS Registry Number (1)

CAS Registry Number (1)

CAS Registry Number (1)

Mark (X) this box if the data continues on the next page.

☐



PMN2011P5A

## PMN Page 5a

SANITIZED SUBMISSION

c. Please identify which method you used to develop or obtain the specified chemical identity information reported in this notice (check one).			<b>CBI</b>
<b>Method 1</b> (CAS Inventory Expert Service - a copy of the identification report obtained from CAS Inventory Expert Service must be submitted as an attachment to this notice) <input type="checkbox"/>	IES Order Number		<b>Method 2</b> (other source) <input type="checkbox"/>
Enter Attachment filename for Part I, Section B, 2. c.			<input type="checkbox"/>
d. The currently correct Chemical Abstracts (CA) name for the polymer that is consistent with TSCA Inventory listings for similar polymers.			<input type="checkbox"/>
CAS Registry Number (if a number already exists for the substance)			
e. Provide a correct representative or partial chemical structure diagram, as complete as can be known, if one can be reasonably ascertained.			<input type="checkbox"/>
Enter Attachment filename for Part I, Section B, 2. e.			<input type="checkbox"/>



## PMN Page 6

## Part I -- GENERAL INFORMATION -- Continued

## Section B -- CHEMICAL IDENTITY INFORMATION -- Continued

## 3. Impurities

- (a) - Identify each impurity that may be reasonably anticipated to be present in the chemical substance as manufactured for commercial purpose. Provide the CAS Registry Number if available. If there are unidentified impurities, enter "unidentified."  
(b) - Estimate the maximum weight % of each impurity. If there are unidentified impurities, estimate their total weight %.

Impurity (a)	CAS Registry Number (a)	Maximum Percent % (b)	Confidential
XXX	XXX	XXX	X
XXX	XXX	XXX	X

Mark (X) this box if the data continues on the next page.

☐

Enter Attachment filename for Part I, Section B, 3.

☐

## 4. Synonyms - Enter any chemical synonyms for the new chemical identified in subsection 1 or 2.

XXX

☒

Enter Attachment filename for Part I, Section B, 4.

☐

## 5. Trade identification - List trade names for the new chemical substance identified in subsection 1 or 2.

2PH-EOP

☐

Enter Attachment filename for Part I, Section B, 5.

☐

## 6. Generic chemical name - If you claim chemical identify as confidential, you must provide a generic name for your substance that reveals the specific chemical identity of the new chemical substance to the maximum extent possible. Refer to the TSCA Chemical Substance Inventory, 1985 Edition, Appendix B for guidance on developing generic names.

Phosphoric acid, diaryl alkyl ester

Enter Attachment filename for Part I, Section B, 6.

## 7. Byproducts - Describe any byproducts resulting from the manufacture, processing, use, or disposal of the new chemical substance. Provide the CAS Registry Number if available.

Byproduct (1)	CAS Registry Number (2)	Confidential

Mark (X) this box if the data continues on the next page.

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PMN2011P7

SANITIZED SUBMISSION

## PMN Page 7

## Part I -- GENERAL INFORMATION -- Continued

## Section C -- PRODUCTION, IMPORT, AND USE INFORMATION:

The information on this page refers to consolidated chemical number(s): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

Mark (X) the "Confidential" box next to any item you claim as confidential.

**1. Production volume** -- Estimate the **maximum** production volume during the first 12 months of production. Also estimate the maximum production volume for any consecutive 12-month period during the first three years of production. Estimates should be on 100% new chemical substance basis. For a Low Volume Exemption application, if you choose to have your notice reviewed at a lower production volume than 10,000 kg/yr, specify the volume and mark (x) in the binding box. If granted, you are bound to this volume.

Maximum first 12-month production (kg/yr) (100% new chemical substance basis)	Maximum 12-month production (kg/yr) (100% new chemical substance basis)	Confidential	Binding Option Mark (X)
XXX	XXX	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Enter Attachment filename for Part I, Section C, 1.			CBI <input type="checkbox"/>

**2. Use Information** -- You must make separate confidentiality claims for the description of the category of use, the percent of production volume devoted to each category, the formulation of the new substance, and other use information. Mark (X) the "Confidential" Box next to any item you claim as confidential.

- a. (1) --Describe each intended category of use of the new chemical substance by function and application.  
(2) --Mark (X) this column if entry column (1) is confidential business information (CBI).  
(3) --Indicate your willingness to have the information provided in column (1) binding.  
(4) --Estimate the percent of total production for the first three years devoted to each category of use.  
(5) --Mark (X) this column if entry in column (4) is confidential business information (CBI).  
(6) --Estimate the percent of the new substance as formulated in mixtures, suspensions, emulsions, solutions, or gels as manufactured for commercial purposes at sites under your control associated with each category of use.  
(7) --Mark (X) this column if entry in column (6) is confidential business information (CBI).  
(8) --Indicate % of product volume expected for the listed "use" sectors. Mark more than one box if appropriate. Mark (X) to indicate your willingness to have the use type provided in (8) binding.  
(9) --Mark (X) this column if entry(ies) in column (8) is (are) confidential business information (CBI).

Category of use (1) (by function and application i.e. a dispersive dye for finishing polyester fibers)	CBI (2)	Binding Option Mark (X) (3)	Prod uction % (4)	CBI (5)	% in Form- ulation (6)	CBI (7)	% of substance expected per use (8)					CBI (9)
							Site- limited	Con- sumer*	Industrial	Com- mercial	Binding Option	
XXX	X		XXX	X	XXX	X	XXX	XXX	XXX	XXX		X

\* If you have identified a "consumer" use, please provide on a continuation sheet a detailed description of the use(s) of this chemical substance in consumer products. In addition include estimates of the concentration of the new chemical substance as expected in consumer products and describe the chemical reactions by which this substance loses its identity in the consumer product.

Mark (X) this box if the data continues on the next page. ☐

- b. Generic use description      If you claim any category of use description in subsection 2a as confidential, enter a generic description of that category. Read the Instruction Manual for examples of generic use descriptions.

Flame retardant

Enter Attachment filename for Part I, Section C, 2. b.	CBI <input type="checkbox"/>
<b>3. Hazard Information</b> -- Include in the notice a copy of reasonable facsimile of any hazard warning statement, label, material safety data sheet, or other information which will be provided to any person who is reasonably likely to be exposed to this substance regarding protective equipment or practices for the safe handling, transport, use, or disposal of the new substance. List in part III hazard information you include.	Binding Option Mark (X)
Mark (X) this box if you attach hazard information. <input checked="" type="checkbox"/>	<input type="checkbox"/>

**Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE****Section A -- INDUSTRIAL SITES CONTROLLED BY THE SUBMITTER**

Mark (X) the "Confidential" box next to any item you claim as confidential

The information on pages 8 and 8a refer to consolidated chemical number(s): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

Complete section A for each type of manufacture, processing, or use operation involving the new chemical substance at industrial sites you control. Importers do not have to complete this section for operations outside the U.S.; however, you may still have reporting requirements if there are further industrial processing or use operations after import. You must describe these operations. See instructions manual

**1. Operation description**

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**a. Identity --** Enter the identity of the site at which the operation will occur.

Name	XXX			<input checked="" type="checkbox"/>
Site address (number and street)	XXX			
City	XXX	County	XXX	
State		ZIP code	XXX	

If the same operation will occur at more than one site, enter the number of sites. Identify the additional sites on a continuation sheet, and if any of the sites have significantly different production rates or operations, include all the information requested in this section for those sites as attachments. →

☒Mark (X) this box if the data continues on the next page. ☐**b. Type --**  
Mark (X)Manufacturing ☐Processing ☐Use ☐☒**c. Amount and Duration --** Complete 1 or 2 as appropriate

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1. Batch	Maximum kg/batch (100% new chemical substance)	Hours/batch	Batches/year	<input checked="" type="checkbox"/>
	XXX	XXX	XXX	
2. Continuous	Maximum kg/day (100% new chemical substance)	Hours/day	Days/year	<input type="checkbox"/>

**d. Process description**Mark (X) to indicate your willingness to have your process description binding. ☐  
→

- (1) Diagram the major unit operation steps and chemical conversions. Include interim storage and transport containers (specify- e.g. 5 gallon pails, 55 gallon drum, rail car, tank truck, etc.).
- (2) Provide the identity, the approximate weight (by kg/day or kg/batch on a 100% new chemical substance basis), and entry point of all starting materials and feedstocks (including reactants, solvents, catalysts, etc.), and of all products, recycle streams, and wastes. Include cleaning chemicals (note frequency if not used daily or per batch.).
- (3) Identify by number the points of release, including small or intermittent releases, to the environment of the new chemical substance. If releasing to two media at the same step, assign a second release number for the second medium.

XXX

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PMN2011P8A

PMN Page 8a

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Diagram of the major unit operation steps.	Confidential
	<input type="checkbox"/>
<p>See Attachment 002 (002 Process Flow Diagram-SAN.docx)</p>	
Enter Attachment filename for Part II, Section A, 1. d.	002 Process Flow Diagram-SAN.docx <input type="checkbox"/>



## PMN Page 9

## Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE -- Continued

## Section A -- INDUSTRIAL SITES CONTROLLED BY THE SUBMITTER -- Continued

The information on pages 9 and 9a refer to consolidated chemical number(s): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

**2. Occupational Exposure** -- You must make separate confidentiality claims for the description of worker activity, physical form of the new chemical substance, number of workers exposed, and duration of activity. Mark (X) the "Confidential" box next to any item you claim as confidential.

- (1) -- Describe the activities (i.e. bag dumping, tote filling, unloading drums, sampling, cleaning, etc.) in which workers may be exposed to the substance.
- (2) -- Mark (X) this column if entry in column (1) is confidential business information (CBI).
- (3) -- Describe any protective equipment and engineering controls used to protect workers.
- (4) and (6) -- Indicate your willingness to have the information provided in column (3) or (5) binding.
- (5) -- Indicate the physical form(s) of the new chemical substance (e.g., solid: crystal, granule, powder, or dust) and % new chemical substance (if part of a mixture) at the time of exposure.
- (7) -- Mark (X) this column if entries in columns (3) and (5) are confidential business information (CBI).
- (8) -- Estimate the maximum number of workers involved in each activity for all sites combined.
- (9) -- Mark (X) this column if entry in column (8) is confidential business information (CBI).
- (10) and (11) -- Estimate the maximum duration of the activity for any worker in hours per day and days per year.
- (12) -- Mark (X) this column if entries in columns (10) and (11) are confidential business information (CBI).

Worker activity (i.e., bag dumping, filling drums) (1)	CBI (2)	Protective Equipment/ Engineering Controls (3)	Binding Option Mark (X) (4)	Physical form(s) & % new substance (5)	Binding Option Mark (X) (6)	CBI (7)	# of Workers Exposed (8)	CBI (9)	Maximum Duration		CBI (12)
									Hrs/Day (10)	Days/Yr (11)	
XXX	X	XXX		XXX		X	XXX	X	XXX	XXX	X
XXX	X	XXX		XXX		X	XXX	X	XXX	XXX	X
XXX	X	XXX		XXX		X	XXX	X	XXX	XXX	X
XXX	X	XXX		XXX		X	XXX	X	XXX	XXX	X

Mark (X) this box if the data continues on the next page.

Enter Attachment filename for Part II, Section A on the bottom of page 9a.



## PMN Page 9a

**3. Environmental Release and Disposal** -- You must make separate confidentiality claims for the release number and the amount of the new chemical substance released and other release and disposal information. Mark (X) the "Confidential" box next to each item you claim as confidential.

- (1) -- Enter the number of each release point identified in the process description, part II, section A, subsection 1d(3).
- (2) -- Estimate the amount of the new substance released (a) directly to the environment or (b) into control technology (in kg/day or kg/batch).
- (3) -- Mark (X) this column if entries in columns (1) and (2) are confidential business information (CBI).
- (4) -- Identify the media (stack air, fugitive air (optional-see Instruction Manual), surface water, on-site or off-site land or incineration, POTW, or other (specify)) to which the new substance will be released from that release point.
- (5) -- a. Describe control technology, if any, and control efficiency that will be used to limit the release of the new substance to the environment. For releases disposed of on land, characterize the disposal method and state whether it is approved for disposal of RCRA hazardous waste. On a continuation sheet, for each site describe any additional disposal methods that will be used and whether the waste is subject to secondary or tertiary on-site treatment. b. Estimate the amount released to the environment after control technology (in kg/day).
- (6) -- Mark (X) this column if entries in columns (4) and (5) are confidential business information (CBI).
- (7) -- Identify the destination(s) of releases to water. Please supply NPDES (National Pollutant Discharge Elimination System) numbers for direct discharges or NPDES numbers of the POTW (Publicly Owned Treatment Works). Mark (X) if the POTW name or NPDES # is confidential business information (CBI).

Release Number (1)	Amount of New Substance Released		CBI (3)	Medium of release e.g. Stack air (4)	Control technology and efficiency (you may wish to optionally attach efficiency data)			CBI (6)
	(2a)	(2b)			(5a)	Binding Mark (X)	(5b)	
xxx	xxx	xxx	X		xxx		xxx	X
xxx	xxx	xxx	X		xxx		xxx	X
xxx	xxx	xxx	X		xxx		xxx	X

Mark (X) this box if the data continues on the next page.

☐

(7) Mark (X) the destination(s) of releases to water.				NPDES#	CBI
<input checked="" type="checkbox"/>	POTW--provide name(s)	xxx		xxx	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Navigable waterway-- provide name(s)				<input type="checkbox"/>
<input type="checkbox"/>	Other--Specify				<input type="checkbox"/>

Enter Attachment filename for Part II, Section A.

☐



PMN2011P10

## PMN Page 10

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## Part II-- HUMAN EXPOSURE AND ENVIRONMENTAL RELEASE -- Continued

## Section B -- INDUSTRIAL SITES CONTROLLED BY OTHERS

The information on pages 10 and 10a refer to consolidated chemical number(s): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

Complete section B for typical processing or use operations involving the new chemical substance at sites you do not control. Importers do not have to complete this section for operations outside the U.S.; however, you must report any processing or use activities after import. See the Instructions Manual. *Complete a separate section B for each type of processing, or use operation involving the new chemical substance.* If the same operation is performed at more than one site describe the typical operation common to these sites. Identify additional sites on a continuation sheet.

**1(a). Operation Description** -- To claim information in this section as confidential, bracket (e.g. {}) the specific information that you claim as confidential.

- (1) -- Diagram the major unit operation steps and chemical conversions, including interim storage and transport containers (specify - e.g. 5 gallon pails, 55 gallon drums, rail cars, tank trucks, etc). On the diagram, identify by letter and briefly describe each worker activity.
- (2) -- Either in the diagram or in the text field 1(b) below, provide the identity, the approximate weight (by kg/day or kg/batch, on an 100% new chemical substance basis), and entry point of all feedstocks (including reactants, solvents and catalysts, etc) and all products, recycle streams, and wastes. Include cleaning chemicals (note frequency if not used daily or per batch).
- (3) -- Either in the diagram or in the text field 1(b) below, identify by number the points of release, including small or intermittent releases, to the environment of the new chemical substance.
- (4) -- Please enter the # of sites (remember to identify the locations of these sites on a continuation sheet):

Number of Sites

Confidential



**1(b).** (Optional) This space is for a text description to clarify the diagram above.

Confidential



XXX

Enter Attachment filename for Part II, Section B on the bottom of page 10a.





PMN2011P10-1

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## Continuation Sheet

<b>ID</b>	P10SB1(a)(4)1	<b>Field</b>	Part II, Section B, 1(a)(4). Operation Site Locations
<p>XXX</p>			



## PMN Page 10a

**2. Worker Exposure/Environmental Release**

- (1) -- From the diagram above, provide the letter for each worker activity. Complete 2-8 for each worker activity described.
- (2) -- Estimate the number of workers exposed for all sites combined.
- (4) -- Estimate the typical duration of exposure per worker in (a) hours per day and (b) days per year.
- (6) -- Describe physical form of exposure and % new chemical substance (if in mixture), and any protective equipment and engineering controls, if any, used to protect workers.
- (7) -- Estimate the percent of the new substance as formulated when packaged or used as a final product.
- (9) -- From the process diagram above, enter the number of each release point. Complete 9-13 for each release point identified.
- (10) -- Estimate the amount of the new substance released (a) directly to the environment or (b) into control technology to the environment (in kg/day or kg/batch).
- (12) -- Describe media of release i.e. stack air, fugitive air (optional-see Instructions Manual), surface water, on-site or off-site land or incineration, POTW, or other (specify) and control technology, if any, that will be used to limit the release of the new substance to the environment.
- (14) -- Identify byproducts which may result from the operation.
- (3), (5), (8), (11), (13) and (15) -- Mark (X) this column if any of the proceeding entries are confidential business information (CBI).

Letter of Activity	# of Workers Exposed	CBI	Duration of Exposure		CBI	Protective Equip./Engineering Controls/Physical Form	% new substance	% in Formulation	CBI
(1)	(2)	(3)	(4a)	(4b)	(5)	(6)	(6)	(7)	(8)

Release Number	Amount of New Substance Released		CBI	Media of Release & Control Technology	CBI
(9)	(10a)	(10b)	(11)	(12)	(13)

Mark (X) this box if the data continues on the next page.

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(14) Byproducts:		(15) CBI	<input type="checkbox"/>
------------------	--	----------	--------------------------

Enter Attachment filename for Part II, Section B.

☐



**OPTIONAL POLLUTION PREVENTION INFORMATION**

To claim information in the following section as confidential, bracket (e.g. {}) the specific information that you claim as confidential.

In this section you may provide information not reported elsewhere in this form regarding your efforts to reduce or minimize potential risks associated with activities surrounding manufacturing, processing, use and disposal of the PMN substance. Please include new information pertinent to pollution prevention, including source reduction, recycling activities and safer processes or products available due to the new chemical substance. Source reduction includes the reduction in the amount or toxicity of chemical wastes by technological modification, process and procedure modification, product reformulation, and/or raw materials substitution. Recycling refers to the reclamation of useful chemical components from wastes that would otherwise be treated or released as air emissions or water discharges, or land disposal. Quantitative or qualitative descriptions of pollution prevention, source reduction and recycling should emphasize potential risk reduction in addition to compliance with existing regulatory requirements. The EPA is interested in the information to assess overall net reductions in toxicity or environmental releases and exposures, not the shifting of risks to other media (e.g., air to water) or nonenvironmental areas (e.g., occupational or consumer exposure). To the extent known, information about the technology being replaced will assist EPA in its relative risk determination. In addition, information on the relative cost or performance characteristics of the PMN substance to potential alternatives may be provided.

Describe the expected net benefits, such as

- (1) an overall reduction in risk to human health or the environment;
- (2) a reduction in the generation of waste materials through recycling, source reduction or other means;
- (3) a reduction in the use of hazardous starting materials, reagents, or feedstocks;
- (4) a reduction in potential toxicity, human exposure and/or environmental release; or
- (5) the extent to which the new chemical substance may be a substitute for an existing substance that poses a greater overall risk to human health or the environment.

**Information provided in this section will be taken into consideration during the review of this substance. See PMN Instructions Manual and Pollution Prevention Guidance manual for guidance and examples.**

not applicable

Enter Attachment filename for Pollution Prevention Page 11.



**Part III -- LIST OF ATTACHMENTS**

Attach continuation sheets for sections of the form, test data and other data (including physical/chemical properties and structure/activity information), and optional information after this page. Clearly identify the attachment and the section of the form to which it relates, if appropriate. Number consecutively the pages of any paper attachments. In the Number of Pages column below, enter the inclusive page numbers of each attachment for paper submissions or enter the total number of pages for each attachment for electronic submissions. Electronic attachments can be identified by filename.

Mark (X) the "Confidential" box next to any attachment name or filename you claim as confidential. Read the Instructions Manual for guidance on how to claim any information in an attachment as confidential. You must include with the sanitized copy of the notice form a sanitized version of any attachment in which you claim information as confidential.

#	Attachment Name	Attachment Filename	Number of Pages	Associated PMN Section Number	CBI
001	Chemical structure-SAN	001 Structure SAN.docx	1	Pt.I, Sec.B, 1e.	
002	Process FLOW Diagram-SAN	002 Process Flow Diagram-SAN.docx	1	Pt.2, Sec.A, 1d.	
003	Particle Size Information-SAN	003 Particle Size-SAN.docx	1		
004	Customer List-SAN	004 Customer List-SAN.docx	1		
005	IR Spectrum SAN	005 IR Spectrum SAN.pdf	1		
006	MSDS SAN	006 MSDS SAN.pdf	3		
007	Fish BCF SAN	007 Fish BCF SAN.pdf	26		
008	Ames Test SAN	008 AMES test SAN.pdf	29		
009	Chromosome Aberration SAN	009 Chromosome Aberration SAN.pdf	30		
010	28 Oral Rat SAN	010 28 Day Oral Rat SAN.pdf	47		
011	Biodegradation SAN	011 Biodegradation SAN.pdf	30		
012	Fish Toxicity SAN	012 Fish Toxicity SAN.pdf	39		
013	Daphnia Toxicity SAN	013 Daphnia toxicity SAN.pdf	36		
014	Alga Toxicity SAN	014 Alga toxicity SAN.pdf	42		
Mark (X) this box if the data continues on the next page.					<input type="checkbox"/>



PMN2011P13

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## PMN Page 13

## PHYSICAL AND CHEMICAL PROPERTIES WORKSHEET

The information on this page refers to chemical number(s): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

To assist EPA's review of physical and chemical properties data, please complete the following worksheet for data you provide and include it in the notice. Identify the property measured, the value of the property, the units in which the property is measured (as necessary), and whether or not the property is claimed as confidential. Give the attachment number (found on page 12) in column (b). The physical state of the neat substance should be provided. These measured properties should be for the neat (100% pure) chemical substance. Properties that are measured for mixtures or formulations should be so noted (% PMN substance in \_\_\_\_). You are not required to submit this worksheet; however, EPA strongly recommends that you do so, as it will simplify the review and ensure that confidential information is properly protected. You should submit this worksheet as a supplement to your submission of test data. This worksheet is not a substitute for submission of test data.

Property (a)	Unit	Mark X if Provided	Attachment Number (b)	Value (c)			Measured or Estimate (M or E)	CBI Mark (X) (d)
				(solid)	(liquid)	(gas)		
Physical state of neat substance		<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measured	
Vapor Pressure @ Temperature	°C	<input type="checkbox"/>				Torr		
Density/relative density		<input type="checkbox"/>		1.08		g/cm3	Measured	
Solubility								
@ Temperature	°C	<input type="checkbox"/>				g/L		
Solvent								
Solubility in Water @ Temperature	°C	<input type="checkbox"/>				g/L		
Melting Temperature		<input type="checkbox"/>		79		°C	Measured	
Boiling / Sublimation temperature @	Torr	<input type="checkbox"/>				°C		
Spectra		<input type="checkbox"/>					Measured	
Dissociation constant		<input type="checkbox"/>						
Octanol / water partition coefficient		<input type="checkbox"/>						
Henry's Law constant		<input type="checkbox"/>						
Volatilization from water		<input type="checkbox"/>						
Volatilization from soil		<input type="checkbox"/>						
pH@ concentration		<input type="checkbox"/>						
Flammability		<input type="checkbox"/>						
Explosability		<input type="checkbox"/>						
Adsorption / Coefficient		<input type="checkbox"/>						
Particle Size Distribution		<input type="checkbox"/>						
Other – Specify		<input type="checkbox"/>						

## ATTACHMENT HEADER SHEET

Attachment Number 001

Attachment Name

Chemical structure-SAN

Associated PMN Section Number

Pt.I, Sec.B, 1e.

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 002

Attachment Name

Process FLOW Diagram-SAN

Associated PMN Section Number

Pt.2, Sec.A, 1d.

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 003

Attachment Name

Particle Size Information-SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 004

Attachment Name

Customer List-SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 005

Attachment Name

IR Spectrum SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156



## ATTACHMENT HEADER SHEET

Attachment Number 006

Attachment Name

MSDS SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 007

Attachment Name

Fish BCF SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 008

Attachment Name

Ames Test SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 009

Attachment Name

Chromosome Aberration SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 010

Attachment Name

28 Oral Rat SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 011

Attachment Name

Biodegradation SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 012

Attachment Name

Fish Toxicity SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

## ATTACHMENT HEADER SHEET

Attachment Number 013

Attachment Name

Daphnia Toxicity SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156



## ATTACHMENT HEADER SHEET

Attachment Number 014

Attachment Name

Alga Toxicity SAN

Associated PMN Section Number

N/A

Does not contain CBI

Report Number

NICC110316460458156

**Focus Report**  
**New Chemicals Program**  
PMN Number: **P-11-0268**

Focus Date: 04/10/2011 11:00:00 PM Report Status: Completed  
Consolidated Set:  
Focus Chair: Geraldine Hilton Contractor: Stephen Wieroniey

**I. Notice Information**

Submitter: [REDACTED] CAS Number: [REDACTED]  
Chemical Name: Phosphoric acid, 2-phenoxyethyl diphenyl ester  
Use: Flame retardant [REDACTED] all  
[REDACTED] analogs are flame retardants.  
No other uses found for the PMN material.  
PV-Max: [REDACTED] Kg/yr  
Manufacture: Import: X

**II. SAT Results**

(1) **Health Rating:** 1-2 **Eco Rating:** 2 **Comments:** ;  
**Occupational:** 2-3B **Non-Occupational:** **Environmental:** 3  
(1) **PBT:** 2 1 1 **Comments:**

**III. OTHER FACTORS**

**Categories:**

Health Chemical Category: Ecotox Category: phosphate esters

**Related Cases/Regulatory History:**

Health related Cases:  
Ecotox Related Cases: Analogs: [REDACTED].  
Regulatory History: [REDACTED]

**MSDS/Label Information:**

MSDS: Yes Label: No  
General Equipment: Use impervious gloves and safety glasses or goggles.  
Respirator: Use of respirators identified but no specific recommendations made about selecting appropriate respiratory PPE.  
Health Effects: MSDS states "no hazard in normal industrial use" for potential health effects through inhalation, eye, skin, and ingestion.  
TLV/PEL (PMN or raw material): - None Established

**Exposure Based Information:**

Exposure Based Review: N Exposure Based Review (Health):  
Exposure Based Review (Eco): N Exposure Based (Occupational): No  
Exposure Based Review (Non Occupational): Exposure Based (Environmental):

**IV. Summary of SAT Assessment**

**Fate:**

**Fate Summary:** P-11-0268  
FATE:  
Solid with MP = 79 C (M)  
log Kow = 4.67 (E)  
S = 1.33 mg/L at 25 C (E)

VP < 1.0E-6 torr at 25 C (E)  
BP > 400 C (E)  
H < 1.00E-8 (E)  
log Koc = 4.13 (E)  
log Fish BCF = 1.92 (E)  
log Fish BAF = 1.85 (E)  
POTW removal (%) = 90 via sorption and biodeg; Japanese Biodegradability Test: 0% (BOD)/28d. Japanese Bioconcentration Test: 192 (low), 222 (high)/60d.  
Time for complete ultimate aerobic biodeg ≥ mo  
Sorption to soils/sediments = v.strong  
PBT Potential: P2B1  
\*CEB FATE: Migration to ground water = negl

## Health:

### Health Summary:

Not absorbed through the skin as the neat material moderate absorption through the skin if in solution (pchem), moderate absorption from the lung and GI tract (pchem). Concern for mutagenicity based on submitted test data.

### Test Data:

(-) Salmonella with and without activation; (-) E. coli with and without activation; (+) for chromosome aberrations in CHL cells with and (-) without activation; rat 28-day oral NOEL = 1000 mg/kg (highest dose tested)

## Ecotox:

### Ecotox Values:

Fish 96-h LC50:	1.2(P)
Daphnid 48-h LC50:	2.1(P)
Green algal 96-h EC50:	2.7(P)
Fish Chronic Value:	0.10(P)
Daphnid ChV:	0.38(P)
Algal ChV:	0.96(P)

**Ecotox values comments:** Predictions based on SARs for phosphate esters; Ecotox Chemical Class: phosphate triester; MW [REDACTED]; solid with mp = 79 C (M); log Kow = 4.67 (EPI); S = 1.33 mg/L at 20 C (P); pH7; DW hardness < 150.0 mg/L as CaCO3; ECs based on 100% active ingredients and mean measured concentrations with DW TOC < 2.0 mg TOC/L;

Ecotoxicity Test Data Results for P-11-0268 [REDACTED];

Three acute ecotoxicity studies were conducted on this PMN (P-11-0268) in 2009 by [REDACTED] a [REDACTED] for [REDACTED] (sponsor) with fish (Medaka (*Oryzias latipes*)), aquatic invertebrates (water fleas (*Daphnia magna*)), and aquatic plants (green algae (*Pseudokirchneriella subcapitata*)). The PMN is a white powder at room temperature with a purity of [REDACTED] an estimated water solubility of 1.33 mg/L, an estimated vapor pressure of <1E-6 mmHg at 25°C, and an estimated log Kow of 4.67. Of the three tests, no study utilized OECD or OCSPP testing guidelines. All three tests were conducted as limit tests. The testing laboratory used their estimated water solubility limit (which was different for all three tests because of the different test medium) as the one test concentration in the respective test. Unfortunately, the testing laboratory did not provide adequate information to support their water solubility limits (per Justin Roberts in EPA's Industrial Chemistry Branch). As a result, the three submitted tests are considered invalid. The chronic and acute concern concentrations for P-11-0268 are 10 ppb and 240 ppb, respectively, based on the ECOSAR-based predictions.

Ecotox Study Reviewer: J. Gallagher

QA/QC: T. Wright 07 April 2011

### Ecotox Factors:

Assessment Factor:	10
Concern Concentration:	10



## **V. Summary of Exposures/Releases**

Engineering Summary: P-11-0268

<b>Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>			
<b>Sites</b>			
<b>Media</b>			
Descriptor A	Output 2	Output 2	Output 2
Quantity A (kg/site/day)			
Frequency A (day/year)			
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

<b>Engineering Summary: Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>			
<b>Sites</b>			
<b>Media</b>			
Quantity A (kg/site/day)			
Frequency A (day/year)			
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

## **V. Summary of Exposures/Releases**

Engineering Summary: P-11-0268

<b>Exposures/Releases</b>	<b>Exposure</b>	<b>Exposure</b>	<b>Exposure</b>
<b>Scenario</b>			
<b>Sites</b>			
<b>Media</b>			
Descriptor A	High End	Upper Bound	High End
Quantity A (kg/site/day)			
Frequency A (day/year)			
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type	Solid	Particulate	Liquid

## **VI. Focus Decision and Rationale**

### **Regulatory Actions**

Regulatory Decision: PMN Standard Review

Decision Date: 04/10/2011

Type of Decision:

Rationale:

P-11-0268 was placed into standard review for ecotoxicity and fate concerns. The standard review will determine the appropriate chemical category. A schedule, T.I. and an EETD team is required. Human health concerns were low-moderate. The submitter should update their MSDS to include health toxicity data. Ecotoxicity concerns were moderate and risks to the environment were high based on exceedences of both the chronic and acute COC. During processing operations the SWCs of 427 ppb and 1,394 ppb exceeded the acute COC of 240 ppb and the chronic COC of 10 ppb was exceeded [REDACTED] days/yr (SWC 427 ppb). During use operations the SWCs of 405 ppb, 351 ppb, and 336 ppb exceeded the 240 ppb acute COC, During use operations the 10 ppb COC was exceed [REDACTED] days/yr (SWC: 405 ppb), [REDACTED] days/yr (SWC: 124 ppb), [REDACTED] days/yr (SWC: 351 ppb), [REDACTED] days/yr (SWC: 281 ppb), [REDACTED] days/yr (SWC: 86 ppb) and [REDACTED] days/yr (SWC: 224 ppb). Ecotoxicity testing will be the acute base set including: a fish acute toxicity test, freshwater and marine (Harmonized test guideline 850.1075), an aquatic invertebrate acute toxicity test, freshwater daphnids (Harmonized test guideline 850.1010), and an algal toxicity test, tiers I and II (Harmonized test guideline 850.5400). Fish and daphnia studies should be completed using the flow through method and the static method for algae. The special considerations for conducting aquatic laboratory studies (Harmonized test guideline 850.1000) should also be followed. Fate testing will be Zahn-Wellens test (Harmonized test guideline 835.3220 or OECD 302B).

Summary of exposures and releases

[REDACTED]

Fate Releases to Water (65.00% Removal)

SWC: 1,394 ppb

DW: LADD: 1.36E-04 mg/kg/day; ADR: 6.94E-02 mg/kg/day

FI: LADD: 4.86E-05 mg/kg/day; ADR: 9.54E-02 mg/kg/day

Fate Releases to Water (65.00% Removal)

SWC: 427 ppb

DW: LADD: 1.00E-04 mg/kg/day; ADR: 2.13E-02 mg/kg/day

FI: LADD: 3.58E-05 mg/kg/day; ADR: 2.92E-02 mg/kg/day

>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Air:

Stack Air: ADR: 4 [REDACTED] mg/kg/day

Fugitive Air: ADR: [REDACTED] mg/kg/day

Use:

[REDACTED]

[REDACTED]

Fate Releases to Water (65.00% Removal)  
SWC: 405 ppb  
DW: LADD: 7.48E-05 mg/kg/day; ADR: 1.97E-02 mg/kg/day  
FI: LADD: 2.67E-05 mg/kg/day; ADR: 1.14E-02 mg/kg/day  
>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Water (65.00% Removal)  
SWC: 124 ppb  
DW: LADD: 1.60E-05 mg/kg/day; ADR: 6.31E-03 mg/kg/day  
FI: LADD: 5.71E-06 mg/kg/day; ADR: 2.44E-03 mg/kg/day  
>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Water (65.00%)  
SWC: 351 ppb  
DW: LADD: 5.29E-05 mg/kg/day; ADR: 1.72E-02 mg/kg/day  
FI: LADD: 1.89E-05 mg/kg/day; ADR: 8.05E-03 mg/kg/day  
>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Water (65.00% Removal)  
SWC: 281 ppb  
DW: LADD: 2.83E-04 mg/kg/day; ADR: 1.37E-02 mg/kg/day  
FI: LADD: 1.01E-04 mg/kg/day; ADR: 7.92E-03 mg/kg/day  
>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Water (65.00% Removal)  
SWC: 86 ppb  
DW: LADD: 6.05E-05 mg/kg/day; ADR: 4.39E-03 mg/kg/day  
FI: LADD: 2.16E-05 mg/kg/day; ADR: 1.70E-03 mg/kg/day  
>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Water (65.00%)  
SWC: 244 ppb  
DW: LADD: 2.00E-04 mg/kg/day; ADR: 1.19E-02 mg/kg/day  
FI: LADD: 7.13E-05 mg/kg/day; ADR: 5.60E-03 mg/kg/day  
>COC (10.00 ppb) [REDACTED] days/yr

Fate Releases to Air:  
Stack Air: LADD: 4.18E-04 mg/kg/day

Fate Releases to Air:  
Stack Air: LADD: 4.18E-04 mg/kg/day

Fate Releases to Air:  
Stack Air: LADD: 4.18E-04 mg/kg/day

P2 Rec Comments:

**Testing:**

**Final Recommended:**

Health:  
Eco:



Fate:  
Other:

03/12/2015 09:55:20 AM

**SAT Report**  
PMN Number: **P-11-0268**  
SAT Date: **3/31/2011 11:00:00 PM**  
Print Date: **3/12/2015**

**Related cases:**

Health related cases:

Ecotox related cases:   Analog:

**Concern levels:**

<b>Type of Concern:</b>	<b><u>Health</u></b>	<b><u>Eco</u></b>	<b><u>Comments</u></b>
<b>Level of Concern:</b>	1-2	2	

<b><u>Persistence</u></b>	<b><u>Bioaccum</u></b>	<b><u>Toxicity</u></b>	<b><u>Comments</u></b>
2	1	1	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	

**Exposure Based Review:**

**Health:**

**Ecotox:** No

**Routes of exposure:**

**Health:** Dermal Inhalation

**Ecotox:** All releases to water

**Fate:** ;

**Keywords:**

**Keywords:**

**Summary of Assessment:**

**Fate:**

**Fate Summary:**   P-11-0268

FATE:

Solid with MP = 79 C (M)

log Kow = 4.67 (E)

S = 1.33 mg/L at 25 C (E)

VP < 1.0E-6 torr at 25 C (E)

BP > 400 C (E)

H < 1.00E-8 (E)

log Koc = 4.13 (E)

log Fish BCF = 1.92 (E)

log Fish BAF = 1.85 (E)

POTW removal (%) = 90 via sorption and biodeg; Japanese Biodegradability Test: 0% (BOD)/28d. Japanese Bioconcentration Test: 192 (low), 222 (high)/60d.

Time for complete ultimate aerobic biodeg ≥ mo

Sorption to soils/sediments = v.strong

PBT Potential: P2B1

\*CEB FATE: Migration to ground water = negl

### **Health:**

**Health Summary:** Not absorbed through the skin as the neat material moderate absorption through the skin if in solution (pchem), moderate absorption from the lung and GI tract (pchem). Concern for mutagenicity based on submitted test data.

**Test Data:** (-) Salmonella with and without activation; (-) E. coli with and without activation; (+) for chromosome aberrations in CHL cells with and (-) without activation; rat 28-day oral NOEL = 1000 mg/kg (highest dose tested)

### **Ecotox:**

Test Organism	Test Type	Test End Point	Predicted	Measured	Comments
fish	96-h	LC50	1.2		
daphnid	48-h	LC50	2.1		
green algal	96-h	EC50	2.7		
fish	—	chronic value	0.10		
daphnid	—	chronic value	0.38		
algal	—	chronic value	0.96		neutral organics baseline
Sewage Sludge	3-h	EC50	—		
Sewage Sludge	—	Chronic Value	—		

### **Ecotox Values Comments:**

Factors	Values	Comments
Assessment Factor	10	
Concentration of Concern (ppb)	10	
SARs	phosphate	
SAR Class	phosphate	new chemicals category: none

Ecotox Category	
-----------------	--

**Ecotox Factors Comments:**

**SAT Chair:** L Keifer 564-8916

## INITIAL REVIEW ENGINEERING REPORT

P-11-0268

Focus Ready Draft 4/10/2011 11:00:00 PM

ENGINEER: Prothero \ EV \ CLM

PV (kg/yr):

### Revision Notes/Assessment Overview:

SUBMITTER:

USE: Flame retardant. %P =  
% = all analogs are flame retardants.

OTHER USES: No other uses found for the PMN material.

MSDS: Yes

LABEL: No

Gen Eqpt: Use impervious gloves and safety glasses or goggles.

Respirator: Use of respirators identified but no specific recommendations made about selecting appropriate respiratory PPE.

Health Effects: MSDS states "no hazard in normal industrial use" for potential health effects through inhalation, eye, skin, and ingestion.

TLV/PEL: - None Established

LVE PPE:

CRSS: (3/30/2011 11:00:00 PM):

Chemical Name:

S-H<sub>2</sub>O: 0.00133 g/L @

VP: 1.0E-6 torr @

MW:

Physical State and Misc CRSS Info:

Neat: Solid Mfg: NK - Imported

Proc/Form:

End Use:

. Submitted data: ; MP = 79 °C; insoluble in water; density = 1.08 g/cc;  
; IR spectrum provided. EPI estimated data (input MP = 79 °C):  
BP = 477 °C; VP = 3.28E-8 torr; WS = 1.33E-3 g/L; log P = 4.67. ACD Labs estimated data (STN pprop): BP =  
468 °C; VP = 1.75E-8 torr; WS = 8.5E-3 g/L; log P = 4.56. %P = 8.36%; %phosphate = . Measured data  
(Physprop) for analog MP = 50.5 °C; BP = 245 °C at 11 torr;  
WS = 1.19 mg/L; log P = 4.59.

Consumer Use:

SAT (concerns): (3/31/2011 11:00:00 PM):

Related Cases and Misc SAT Info:

Ecotox Related Cases: Analogs ->

Migration to groundwater:

PBT rating: P2 B1 T1 .

Health: 1-2, Dermal, Inhalation

Eco: 2, Water (All releases to water with a CC = 10 ppb)

OCCUPATIONAL EXPOSURE RATING: 2-3B

**NOTES & KEY ASSUMPTIONS:**

Generated by the 06/07/2005 version of ChemSTEER. PMN import only -> mfg not assessed. The submitter was contacted to clarify information provided - see Contact Report. The following similar-use, different-submitter past cases were referenced for consistency in assessing the end use operation: [REDACTED] and [REDACTED]

**POLLUTION PREVENTION CONSIDERATIONS:**

No Pollution Prevention information provided by the submitter.

**P2 REC:**

**EXPOSURE-BASED REVIEW:** No (0 criteria met)

P-11-0268

Processing - [REDACTED]

Number of Sites/Location: [REDACTED] submitter site(s)

[REDACTED]

## ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium. Submission estimates release of [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

## RELEASE TOTAL

[REDACTED] kg/yr - all sites

## OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY

Tot. # of workers exposed via assessed routes: [REDACTED]

Basis:

Dermal:

Exposure to Solid

**High End:** [REDACTED] mg/day over [REDACTED] days/yr

**Number of workers (all sites) with Dermal exposure:** [REDACTED]

**Basis:** [REDACTED] [REDACTED]  
[REDACTED]

**Inhalation:**

Exposure to Particulate

**Upper Bound:** [REDACTED] mg/day over [REDACTED] days/yr

**Number of workers (all sites) with Inhalation exposure:** [REDACTED]

**Basis:** [REDACTED] [REDACTED]

**INHALATION MONITORING DATA REVIEW**

1) Uncertainty (estimate based on model, regulatory limit, or data not specific to industry): Yes

2) (a) Exposure level > 1 mg/day? Yes

(b) Hazard Rating for health of 2 or greater? No

**Inhalation Monitoring Data Desired?** Yes (both criteria met)



P-11-0268

[REDACTED]

Number of Sites/Location: [REDACTED] submitter site(s)

[REDACTED]

## ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium. Air - not expected (low volatility PMN; [REDACTED])

[REDACTED]

[REDACTED]

[REDACTED]

## RELEASE TOTAL

kg/yr - all sites

## OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY

Tot. # of workers exposed via assessed routes:

Basis:

Dermal:

Exposure to Liquid

High End: mg/day over days/yr

Number of workers (all sites) with Dermal exposure:

Basis:

## INITIAL REVIEW EXPOSURE REPORT (IRExR)

**Chemical ID: P-11-0268**
**Reviewer: Wong/SS**

### Results Table: Dose, Concentration, and Days Exceeded Results Summary

Exposure Scenario <sup>1</sup>			Water				Landfill	Stack Air		Fugitive Air	
Drinking Water			Fish Ingestion								
ADR		LADD	ADR	LADD	7Q10 <sup>4</sup> CC = 10	PDM Days Exceeded	LADD	ADR	LADD	ADR	LADD
Release activity(ies) <sup>2</sup> ; exposure calculation(s) <sup>3</sup>	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day	µg/l	# Days	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day
PROC: max acute eco	---	---	---	---	1.39E+03	---	---	4.78E-02	---	2.02E-02	---
PROC: PDM1	---	---	---	---	4.28E+02	■	---	---	---	---	---
Use(a): max acute eco	---	---	---	---	4.05E+02	---	---	---	---	---	---
Use(a): PDM1	---	---	---	---	4.05E+02	■	---	---	---	---	---
Use(a): PDM2	---	---	---	---	2.82E+02	■	---	---	---	---	---
Use(a): Max LADD	---	---	---	---	---	---	---	---	4.18E-04	---	---
USE(b): max acute eco	---	---	---	---	1.25E+02	---	---	---	---	---	---
USE(b): PDM1	---	---	---	---	1.25E+02	■	---	---	---	---	---
USE(b): PDM2	---	---	---	---	8.67E+01	■	---	---	---	---	---
USE(b): Max LADD	---	---	---	---	---	---	---	---	4.18E-04	---	---
Use(c): max acute eco	---	---	---	---	3.51E+02	---	---	---	---	---	---
Use(c): PDM1	---	---	---	---	3.51E+02	■	---	---	---	---	---
Use(c): PDM2	---	---	---	---	2.44E+02	■	---	---	---	---	---
Use(c): Max LADD	---	---	---	---	---	---	---	---	4.18E-04	---	---

- 1 Exposure scenario titles consist of release activity followed by exposure calculation abbreviation.
- 2 Release activities are from engineering report's Manufacturing (Mfg), Processing (Proc) and Use release activity labels. Multiple release activities are combined in one exposure scenario if their releases occur at same location.
- 3 Exposure calculations are Acute Dose Rate (ADR), Lifetime Average Daily Dose (LADD), and Probabilistic Dilution Model (PDM). There may be one, two, or all three exposure calculations per exposure scenario. CC is the aquatic concentration of concern.
- 4 This column displays concentration values for the 7Q10 streamflow, which is defined as the average daily streamflow of the seven consecutive days of lowest flow within a ten year period.

Remarks: :

Fate Test Recommendations: Zahn-Wellens Test (OECD 302B)

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

ENVIRONMENTAL RELEASES
------------------------

Scenario#:1 [REDACTED]: [REDACTED]

Release Activity: PROC: Max ADR

Release Description:	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]		[REDACTED]

Total Releases:	[REDACTED]	N/A	[REDACTED]	[REDACTED]
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:	[REDACTED]	0.00/0.00	[REDACTED]	[REDACTED]
Per Site Release:	[REDACTED]	N/A/0.00	[REDACTED]	[REDACTED]
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

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				Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	1.36E-04 mg/kg/day	4.86E-05 mg/kg/day		
LADC <sub>pot</sub>	6.99E-03 mg/L	0.58 mg/kg		
Acute				
ADR <sub>pot</sub>	6.94E-02 mg/kg/day	9.54E-02 mg/kg/day		

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)
--

SCENARIO #: 1

RELEASE ACTIVITY:PROC: Max ADR

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:

1

Per Site Fugitive Release:

1

kg/site/day

Fugitive Release Days per Year:

2

days

% Removal via Fugitive Release:

0.00

%

Total Fugitive Release:

1

kg/yr

Max Annual Average Air Concentration  
(Fugitive):

1

 $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air  
Concentration(Fugitive):

1

 $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release:

1

kg/site/day

Stack Release Days per Year:

1

days

% Removal via Stack Release:

0.00

%

Total Stack Release:

1

kg/yr

Max Annual Average Air Concentration (Stack):

1

 $\mu\text{g}/\text{m}^3$ 

Max 24 Hour Average Air Concentration (Stack):

1

 $\mu\text{g}/\text{m}^3$ 

Exposure Units	Results (Stack)	Results (Fugitive)	ASSUMPTIONS			
			ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)
Cancer						
LADD <sub>pot</sub> (mg/kg/day)	1.05E-04	4.23E-05	30.00	75.00	71.80	0.55
LADC <sub>pot</sub> (mg/m³)	5.72E-04	2.30E-04	30.00	75.00	NA	NA
Acute						
ADR <sub>pot</sub> (mg/kg/day)	4.78E-02	2.02E-02	NA	1 day	71.80	0.55

Inhalation Comments:

## Stack Parameter Data

Stack Height	█	m
Inside Stack Diameter:	█	m
Stack Gas Exit Velocity:	█	m/sec
Stack Gas Temperature:	█	K

## Fugitive Parameter Data

Release Height:	█	m
Length of Release Opening:	█	m
Width of Release Opening:	█	m

## Meteorological and Terrain Information:

Surrounding Land Use:	Rural
Terrain Height:	0.00 m
Distance to Residence of Interest:	100.00 m
Meteorological Class:	Full
Stability Class:	NA
Wind Speed:	NA

## Downwash Information:

Facility Length:	NA m
Facility Width:	NA m
Facility Height:	NA m



# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:2

Release Activity: PDM1

Release Description:				

Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:2

RELEASE ACTIVITY: PROC: PDM1

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Unk DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	1 [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	1.00E-04 mg/kg/day		3.58E-05 mg/kg/day	
LADC <sub>pot</sub>	5.14E-03 mg/L		0.43 mg/kg	
Acute				
ADR <sub>pot</sub>	2.13E-02 mg/kg/day		2.92E-02	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 2

RELEASE ACTIVITY: PROC: PDM1

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Unk

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON  
REACH: N/A

PERIOD OF RECORD: N/A

NUMBER OF  
OBSERVATIONS: N/A

MEAN FLOW (MLD): [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD) [REDACTED]

## RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
10.00	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]0

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:3

Number of Release Sites: 1

Release Activity:

Use(a): Max ADR

Release Description:				
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Total Releases:

		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:

	0.00/0.00	0.00	0.00
--	-----------	------	------

Per Site Release:

	N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:3

RELEASE ACTIVITY: Use(a): Max ADR

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: 0 [REDACTED]

FACILITY ON REACH: No

DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	7.48E-05 mg/kg/day		2.67E-05 mg/kg/day	
LADC <sub>pot</sub>	3.84E-03 mg/L		0.32 mg/kg	
Acute				
ADR <sub>pot</sub>	1.97E-02 mg/kg/day		1.14E-02	mg/kg/day

Surface Water Comments:

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:4

Number of Release Sites:1.

Release Activity: a): PDM1

Release Description:				

Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:4

RELEASE ACTIVITY: Use(a): PDM1

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: No DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	7.48E-05 mg/kg/day		2.67E-05 mg/kg/day	
LADC <sub>pot</sub>	3.84E-03 mg/L		0.32 mg/kg	
Acute				
ADR <sub>pot</sub>	1.97E-02 mg/kg/day		1.14E-02	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 4

RELEASE ACTIVITY: Use(a): PDM1

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: No

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON  
REACH: N/A

PERIOD OF RECORD: N/A

NUMBER OF  
OBSERVATIONS: N/A

MEAN FLOW (MLD): 1 [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD): [REDACTED]

## RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
10.00	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:5

Number of Release Sites:1

Release Activity: PDM2

Release Description:				

Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 5

RELEASE ACTIVITY: Use(a): PDM2

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: 0 [REDACTED]

FACILITY ON REACH: No

DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	2.83E-04 mg/kg/day		1.01E-04 mg/kg/day	
LADC <sub>pot</sub>	1.45E-02 mg/L		1.21 mg/kg	
Acute				
ADR <sub>pot</sub>	1.37E-02 mg/kg/day		7.92E-03	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 5

RELEASE ACTIVITY: Use(a): PDM2

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: No

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON  
REACH: N/A

PERIOD OF RECORD: N/A

NUMBER OF  
OBSERVATIONS: N/A

MEAN FLOW (MLD): [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD) [REDACTED]

## RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
10.00	[REDACTED]	[REDACTED]	[REDACTED]0	[REDACTED]1	[REDACTED]

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:6

Number of Release Sites: 1

Release Activity: (a): Max LADD

Release Description:				
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Total Releases:	0.00	N/A		0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:	0.00	0.00/0.00		0.00
Per Site Release:	0.00	N/A/0.00		0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)
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SCENARIO #: 6

RELEASE ACTIVITY: Use(a): Max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: 1

Per Site Fugitive Release: NA kg/site/day

Fugitive Release Days per Year: NA days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: NA kg/yr

Max Annual Average Air Concentration (Fugitive): 0.00  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air Concentration (Fugitive): N/A  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release: 0.00 kg/site/day

Stack Release Days per Year: 0.00 days

% Removal via Stack Release: 0.00 %

Total Stack Release: 0.00 kg/yr

Max Annual Average Air Concentration (Stack): 0.00  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air Concentration (Stack): N/A  $\mu\text{g}/\text{m}^3$ 

Exposure Units	Results (Stack)	Results (Fugitive)	ASSUMPTIONS			
			ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)
Cancer						
LADD <sub>pot</sub> (mg/kg/day)	4.18E-04	N/A	30.00	75.00	71.80	0.55
LADC <sub>pot</sub> (mg/m³)	2.28E-03	N/A	30.00	75.00	NA	NA
Acute						
ADR <sub>pot</sub> (mg/kg/day)	N/A	N/A	NA	1 day	71.80	0.55

Inhalation Comments:

## Stack Parameter Data

Stack Height	10.00	m
Inside Stack Diameter:	0.10	m
Stack Gas Exit Velocity:	0.10	m/sec
Stack Gas Temperature:	293.00	K

## Fugitive Parameter Data

Release Height:	N/A
Length of Release Opening:	N/A
Width of Release Opening:	N/A

## Meteorological and Terrain Information:

Surrounding Land Use:	Rural
Terrain Height:	0.00 m
Distance to Residence of Interest:	100.00 m
Meteorological Class:	Full
Stability Class:	NA
Wind Speed:	NA

## Downwash Information:

Facility Length:	NA m
Facility Width:	NA m
Facility Height:	NA m

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:7

Number of Release Sites: 1.

Release Activity: (b): Max ADR

Release Description:				

Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 7

RELEASE ACTIVITY: USE(b): Max ADR

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	1.60E-05 mg/kg/day		5.71E-06 mg/kg/day	
LADC <sub>pot</sub>	8.21E-04 mg/L		6.84E-02 mg/kg	
Acute				
ADR <sub>pot</sub>	6.31E-03 mg/kg/day		2.44E-03	mg/kg/day

Surface Water Comments:



# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:8

Number of Release Sites: 1

Release Activity: (b): PDM1

Release Description:				
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Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:8

RELEASE ACTIVITY: USE(b): PDM1

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	1.60E-05 mg/kg/day		5.71E-06 mg/kg/day	
LADC <sub>pot</sub>	8.21E-04 mg/L		6.84E-02 mg/kg	
Acute				
ADR <sub>pot</sub>	6.31E-03 mg/kg/day		2.44E-03	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 8

RELEASE ACTIVITY: USE(b): PDM1

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: 0 [REDACTED]

FACILITY ON REACH: Yes

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: N [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON  
REACH: N/A

PERIOD OF RECORD: N/A

NUMBER OF  
OBSERVATIONS: N/A

MEAN FLOW (MLD): [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD): [REDACTED]

## RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
10.00	[REDACTED]	[REDACTED]	[REDACTED]0	[REDACTED]	[REDACTED]

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:9

Number of Release Sites: 1.

Release Activity: ( ): PDM2

Release Description:				
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Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:9

RELEASE ACTIVITY: USE(b): PDM2

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.	[REDACTED]	[REDACTED]	[REDACTED]	0.00	83.30

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

FLOW DESCRIPTOR	Harmonic Mean	30Q5	7Q10	1Q10	PLANT
FLOW (MLD)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA
CONCENTRATION (µg/L)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	NA

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results	Drinking Water Units	Fish Ingestion Results	Fish Ingestion Units
Cancer				
LADD <sub>pot</sub>	6.05E-05 mg/kg/day		2.16E-05 mg/kg/day	
LADC <sub>pot</sub>	3.10E-03 mg/L		0.26 mg/kg	
Acute				
ADR <sub>pot</sub>	4.39E-03 mg/kg/day		1.70E-03	mg/kg/day

Surface Water Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 9

RELEASE ACTIVITY: USE(b): PDM2

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: 0 [REDACTED]

FACILITY ON REACH: Yes

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED] 5

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON  
REACH: N/A

PERIOD OF RECORD: N/A

NUMBER OF  
OBSERVATIONS: N/A

MEAN FLOW (MLD): [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD) [REDACTED]

## RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Pre-treatment Loading (kg/site/day)	Waste Water Treatment (%)
10.00	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:10

Number of Release Sites: 1

Release Activity: Max LADD

Release Description:				

Total Releases:	0.00	N/A	1	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:	0.00	0.00/0.00		0.00
Per Site Release:	0.00	N/A/0.00		0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)
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SCENARIO #: 10

RELEASE ACTIVITY:USE(b): Max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:

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Per Site Fugitive Release:

NA kg/site/day

Fugitive Release Days per Year:

NA days

% Removal via Fugitive Release:

0.00 %

Total Fugitive Release:

NA kg/yr

Max Annual Average Air Concentration  
(Fugitive):0.00  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air  
Concentration(Fugitive):N/A  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release:

■

kg/site/day

Stack Release Days per Year:

■

days

% Removal via Stack Release:

0.00 %

Total Stack Release:

■

kg/yr

Max Annual Average Air Concentration (Stack):

■

 $\mu\text{g}/\text{m}^3$ 

Max 24 Hour Average Air Concentration (Stack):

N/A

 $\mu\text{g}/\text{m}^3$ 

Exposure Units	Results (Stack)	Results (Fugitive)	ASSUMPTIONS			
			ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)
Cancer						
LADD <sub>pot</sub> (mg/kg/day)	4.18E-04	N/A	30.00	75.00	71.80	0.55
LADC <sub>pot</sub> (mg/m³)	2.28E-03	N/A	30.00	75.00	NA	NA
Acute						
ADR <sub>pot</sub> (mg/kg/day)	N/A	N/A	NA	1 day	71.80	0.55

Inhalation Comments:



## Stack Parameter Data

Stack Height	10.00	m
Inside Stack Diameter:	0.10	m
Stack Gas Exit Velocity:	0.10	m/sec
Stack Gas Temperature:	293.00	K

## Fugitive Parameter Data

Release Height:	N/A
Length of Release Opening:	N/A
Width of Release Opening:	N/A

## Meteorological and Terrain Information:

Surrounding Land Use:	Rural
Terrain Height:	0.00 m
Distance to Residence of Interest:	100.00 m
Meteorological Class:	Full
Stability Class:	NA
Wind Speed:	NA

## Downwash Information:

Facility Length:	NA m
Facility Width:	NA m
Facility Height:	NA m

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:11

Number of Release Sites: 1

Release Activity: : Max ADR

Release Description:				

Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

Chemical ID: P-11-0268

## SCENARIO #: 11

Number of Sites: 

RELEASE ACTIVITY:Use(c):  
Max ADR

SIC-CODE DESCRIPTION:

SIC-CODE (S):

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.00	■	■	■	0.00	■

[illegible]

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.60E-05	5.29E-05	mg/kg/day	5.71E-06	1.89E-05	mg/kg/day
LADC <sub>pot</sub>	8.21E-04	2.71E-03	mg/L	6.83E-02	0.23	mg/kg
Acute						
ADR <sub>pot</sub>	3.19E-03	1.72E-02	mg/kg/day	2.44E-03	8.05E-03	mg/kg/day

SIC Code Comments:

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:12

Number of Release Sites: 1

Release Activity: : PDM1

Release Description:				
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Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

Chemical ID: P-11-0268

## SCENARIO #: 12

Number of Sites: 

RELEASE ACTIVITY:Use(c):  
PDM1

SIC-CODE DESCRIPTION:

SIC-CODE (S):

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.00	■	■	■	0.00	■

[illegible]

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	1.60E-05	5.29E-05	mg/kg/day	5.71E-06	1.89E-05	mg/kg/day
LADC <sub>pot</sub>	8.21E-04	2.71E-03	mg/L	6.83E-02	0.23	mg/kg
Acute						
ADR <sub>pot</sub>	3.19E-03	1.72E-02	mg/kg/day	2.44E-03	8.05E-03	mg/kg/day

SIC Code Comments:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 12

RELEASE ACTIVITY: Use(c): PDM1

SIC CODE DESCRIPTION:

ASSOCIATED SIC CODES:

## SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
10.00	■	■	■	■	■	High

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:13

Number of Release Sites:1

Release Activity: : PDM2

Release Description:				
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Total Releases:		N/A	0.00	0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:		0.00/0.00	0.00	0.00
Per Site Release:		N/A/0.00	0.00	0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13

Number of Sites: 1

RELEASE ACTIVITY: Use(c):  
PDM2

SIC-CODE DESCRIPTION: [REDACTED]

SIC-CODE (S): [REDACTED]

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
65.00	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
ALL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

## DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES

Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD <sub>pot</sub>	6.05E-05	2.00E-04	mg/kg/day	2.16E-05	7.13E-05	mg/kg/day
LADC <sub>pot</sub>	3.10E-03	1.02E-02	mg/L	0.26	0.85	mg/kg
Acute						
ADR <sub>pot</sub>	2.22E-03	1.19E-02	mg/kg/day	1.69E-03	5.60E-03	mg/kg/day

SIC Code Comments:



## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

## SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 13

RELEASE ACTIVITY: Use(c): PDM2

SIC CODE DESCRIPTION:

ASSOCIATED SIC CODES:

## SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
10.00	■	■	■	■	■	High

# INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

Assessor: Wong/SS

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Scenario#:14

Number of Release Sites: 1.

Release Activity: : Max LADD

Release Description:				

Total Releases:	0.00	N/A		0.00
	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Release Days/yr:	0.00	0.00/0.00		0.00
Per Site Release:	0.00	N/A/0.00		0.00
	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

## INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-11-0268

INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)
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SCENARIO #: 14

RELEASE ACTIVITY: Use(c): Max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:

1

Per Site Fugitive Release:

NA kg/site/day

Fugitive Release Days per Year:

NA days

% Removal via Fugitive Release:

0.00 %

Total Fugitive Release:

NA kg/yr

Max Annual Average Air Concentration  
(Fugitive):0.00  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air  
Concentration(Fugitive):N/A  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release:

NA kg/site/day

Stack Release Days per Year:

NA days

% Removal via Stack Release:

0.00 %

Total Stack Release:

NA kg/yr

Max Annual Average Air Concentration (Stack):

NA  $\mu\text{g}/\text{m}^3$ 

Max 24 Hour Average Air Concentration (Stack):

N/A  $\mu\text{g}/\text{m}^3$ 

Exposure Units	Results (Stack)	Results (Fugitive)	ASSUMPTIONS			
			ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)
Cancer						
LADD <sub>pot</sub> (mg/kg/day)	4.18E-04	N/A	30.00	75.00	71.80	0.55
LADC <sub>pot</sub> (mg/m³)	2.28E-03	N/A	30.00	75.00	NA	NA
Acute						
ADR <sub>pot</sub> (mg/kg/day)	N/A	N/A	NA	1 day	71.80	0.55

Inhalation Comments:

## Stack Parameter Data

Stack Height	10.00	m
Inside Stack Diameter:	0.10	m
Stack Gas Exit Velocity:	0.10	m/sec
Stack Gas Temperature:	293.00	K

## Fugitive Parameter Data

Release Height:	N/A
Length of Release Opening:	N/A
Width of Release Opening:	N/A

## Meteorological and Terrain Information:

Surrounding Land Use:	Rural
Terrain Height:	0.00 m
Distance to Residence of Interest:	100.00 m
Meteorological Class:	Full
Stability Class:	NA
Wind Speed:	NA

## Downwash Information:

Facility Length:	NA m
Facility Width:	NA m
Facility Height:	NA m